

LVI

Site Name Lake Wauna Twp Center Sample Date 09/25/18
WBID 3009A WIN ID 62CE0193 RQ 2018-09-24-48

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	LMD 9/28/18	MKL 10/1/18
Create SBIO station visit	LMD 9/28/18	n/a
Vascular Entry (add LIMS ID) 11079	LMD 9/28/18	MKL 10/1/18
Lake Observation Sheet Entry	LMD 9/28/18	MKL 10/1/18
Authorize SBIO data	MKL 10/1/18	n/a
Scan all sheets to 21FLCEN folder	LMD 9/28/18	n/a
LIMS/WIN migration	LMD 11/30/18	n/a
File in cabinet		n/a

Comments/notes: LIMS ID 2028311



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified?

Yes / No

WIN Station Name: Lake Waunatta @ Center

Date: 09/25/2018
(mm/dd/yyyy)

WIN/ Field ID: G2CE0193

WBID: 3009A

Latitude: 28.60254148

(Decimal Degrees)

County: Orange

ORG ID: 21 FL CEN

Longitude: -81.27856254

(Decimal Degrees)

Receiving Body of Water: _____

RQ-2018- 09-24-48

Sampling Team Members

WQ Measurements
Sample Collection
Documentation
Preservation
Preservation Check

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☒ Syringe
☐ Dipper ☐ Other _____

Depth Measured with SECCHI DISK/LINE/METER
Equipment ID (KNOTHEAD/67, LEADFOOT/ION, CRUSTY/SCUD)

Collection Method

☐ Wading ☒ Canoe/Kayak
☐ From Shore ☐ Electric Motor
☐ Other _____ ☐ Gasoline Motor

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Meter ID# Buoys/Non

Matrix: Fresh / Marine / DI

Photos: Yes / No

Flow: No Flow / Intertidal / Flowing / NA

Tide: Rising/ Falling/ Slack/ NA

Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT _h)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1059	4.9	0.3	2.0	7.35	97.9	7.72	0.08	170	30.38
CEN			4.4		5.25	43.1	7.29	0.08	171	29.94

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: 78904 HA-ID: _____ RPS-ID: _____ Macrophyte-ID: 11079 LIMS#: 2028311

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / ☐ W-NO2NO3 / ☐ W-TKN / ☐ W-TOC / ☐ W-S-A-TP	☐ Ice ☐ H ₂ SO ₄			☐ <2
Metals	☒ W-ICPMS ☒ W-ICP	☐ Ice ☐ HNO ₃			☐ <2
Filtered Nutrients	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice	13615055		
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY / ☐ W-CH-IC / ☐ W-COLOR / ☐ W-SO4-IC / ☐ W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☐ Ice ☐ Other			

H2SO4
LOT# SA8101020
EXP: 04/11/2019

Place Preservative Sticker(s) Here
(If Available)

HNO3
LOT# NA8080070
EXP: 03/21/19

Notes:

8049 Lk Waunatta Dr

WIN ID / Field ID →

Lake Waunatta @ Center
(3009A)



G2CE0193

Signature: _____

Date: _____

Enter Field Parameters, Verify Station ID In LIMS DMT: LMD 9/28/18

QC Station ID, Field Parameters In LIMS DMT: _____

Scan/Save Field Sheets _____

Migrate Data to WIN: _____

Verify Data In WIN: _____

(Initials/Date)

(Initials/Date)

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 78904 MACROPHYTE ID: _____ LATITUDE: 28.60254148
 COUNTY: Orange STORET #: 62CE0193 LONGITUDE: -81.27856254
 DATE: 9/25/18 TIME: 1059 SAMPLING AGENCY: FDEP-CEROC
 SITE NAME: Lake Waunatta Center WBID: 3009A
 FIELD ID/NAME: 62CE0193 LAKE SIZE: 70 acre RQ: 2018-09-24-48

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☐ Industrial ☐ Other (Specify) ☐				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:					
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy				Artificially Impounded ☐ Yes ☒ No					
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy				Land Use Source & Year:					
STORMWATER INPUTS <u>4</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>2</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11		Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6		Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>1</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6		< 29% of shoreline with >18m buffer 5 4 3 2 1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>SA8101020</u> Exp. Date: <u>4/11/2019</u> Alkalinity Sample Taken? ☒ Yes ☐ No <u>NA 8080070</u> <u>3/21/19</u> Water Level ☐ Low ☒ Normal ☐ High						Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____											
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>30.38</u> <u>7.72</u> <u>7.35</u> <u>97.9</u> <u>170</u> <u>0.08</u> Mid-Depth: _____ Bottom: <u>4.4</u> <u>29.94</u> <u>7.29</u> <u>5.25</u> <u>43.1</u> <u>171</u> <u>0.08</u> Meter ID: _____						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____											
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic											
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? ☐ Yes ☐ No Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know						Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☒ ☐ ☐						Additional Notes:					
Weather Conditions: <u>Low 90's clear</u>																	
SAMPLING TEAM: <u>Mike Linger / Mike Drennan</u>						SIGNATURE: _____			DATE: <u>9/25/18</u>								

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Wannatta</u>		County: <u>Orange</u>		Date: <u>9/25/18</u>							
Analyst: <u>Mike Liger / Mike Diennen</u>		Signature: <u>[Signature]</u>		STORET: <u>G2CE0193</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 <u>2, 5, 8, 11</u> 3, 6, 9, 12							
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.											
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum						Fraxinus					
Alternanthera philoxeroides	/	/	/	/		Fuirena scirpoides					
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.	/					Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.	/	/	/	/	
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica	/		/	/		*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine				/	
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	/					Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense	/	/	/	/		Lachnanthes caroliniana					
Colocasia esculenta	/	/	/	/		Leersia hexandra					
*Commelina <u>diffusa</u>				/		Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnobium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua			/	/	
*Cyperus polystachyos			/	/		*Ludwigia arcuata					
*Cyperus odoratus			/	/		*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)	/	/	/	/	
Diodia virginiana	/	/	/	/		*Ludwigia octovalvis	/	/	/	/	
*Echinochloa crus-galli						*Ludwigia peruviana	/	/	/	/	
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)		/	/	/	
Eichhornia crassipes						Magnolia virginiana	/	/	/	/	
*Eleocharis						Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens	/	/	/	/	
Eleocharis submersed viviparous						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera				/	
*Eriocaulon decangulare											
Eupatorium capillifolium											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Wannatta					Date: 9/25/18						
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>	/				
* <i>Myriophyllum heterophyllum</i>						Salvinia minima					
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>					
* <i>Myriophyllum pinnatum</i>						Sapium sebiferum					
Myriophyllum spicatum						<i>Saururus cernuus</i>	/				
* <i>Najas filifolia</i>		/	/	/		Schinus terebinthifolius	/				
* <i>Najas guadalupensis</i>	/	/	/	/		* <i>Schoenoplectus californicus</i>					
* <i>Najas minor</i>						* <i>Schoenoplectus pungens</i>					
<i>Nelumbo lutea</i>						* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)					
<i>Nitella</i> spp.	/	/	/	/		<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)					
<i>Nuphar</i> sp.	/	/	/	/		<i>Scirpus cyperinus</i>					
<i>Nymphaea mexicana</i>						* <i>Sesbania</i>					
<i>Nymphaea odorata</i>	/	/	/	/		<i>Solidago</i> sp.					
<i>Nymphoides aquatica</i>	/	/	/	/		<i>Sparganium americanum</i>					
<i>Nyssa sylvatica</i> var. <i>biflora</i>						<i>Spartina bakeri</i>					
<i>Orontium aquaticum</i>						<i>Spirodela polyrhiza</i>					
<i>Osmunda cinnamomea</i>						<i>Taxodium</i> sp.	/	/	/	/	
<i>Osmunda regalis</i>						<i>Thalia geniculata</i>	/	/	/	/	
<i>Panicum hemitomon</i>	/	/	/	/		<i>Thelypteris interrupta</i>					
<i>Panicum repens</i>	/	/	/	/		<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.	/	/	/	/	
<i>Paspalum urvillei</i>						<i>Urochloa mutica</i> (<i>Brachiaria mutica</i>)	/	/	/	/	
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (<i>U. biflora</i>)					
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>					
<i>Pennisetum purpureum</i>						* <i>Utricularia inflata</i>					
<i>Phragmites australis</i>						* <i>Utricularia purpurea</i>					
<i>Pinus elliotii</i>			/			* <i>Utricularia radiata</i>					
<i>Pistia stratioides</i>						* <i>Utricularia resupinata</i>	/	/	/	/	
<i>Pluchea</i> sp.						<i>Vallisneria americana</i>	/	/	/	/	
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)						<i>Vitis</i> sp.					
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>	/	/	/	/	
* <i>Polygonum hydropiperoides</i>						<i>Wedelia trilobata</i> (<i>Sphagneticola trilobata</i>)	/	/	/	/	
* <i>Polygonum punctatum</i>			/			<i>Wolffiella</i> spp.					
* <i>Polygonum</i>						<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>	/	/	/	/		<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>						<i>Halcyon grass</i>	/	/	/	/	
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)						<i>Vignea luteola</i>	/	/	/	/	
<i>Proserpinaca pectinata</i>						<i>Cyperus proflifer</i>	/	/	/	/	
* <i>Rhexia</i>						<i>Phylla nodiflora</i>	/	/	/	/	
* <i>Rhynchospora corniculata</i>						<i>Najas</i>	/	/	/	/	
* <i>Rhynchospora inundata</i>						<i>Stuckenia pectinatus</i>	/	/	/	/	
<i>Rhynchospora nitens</i>						<i>Sacciolepis indica</i>	/	/	/	/	
<i>Ricciocarpus natans</i>						<i>Luisera squarrosa</i>	/	/	/	/	
<i>Sabal palmetto</i>											
<i>Sacciolepis striata</i>											
* <i>Sagittaria filiformis</i>											
* <i>Sagittaria graminea</i>											
* <i>Sagittaria isoetiformis</i>											
<i>Sagittaria lancifolia</i>	/	/	/	/							
<i>Sagittaria latifolia</i>											

LMD

Pic 1,2
Pic 2 and
P. 1 and
P. 2 and

LVI Map for WAUNATTA LAKE, WBID 3009A

